

Docket No. 1223-001

PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

JOHN P. GAHAN

Application No.: 09/600,320

Filed: July 16, 2000

For: ROTARY TWO STROKE ENGINE

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Group Art Unit: 3748

Examiner: Thai-Ba Trieu

**REMARKS**

The Applicant has carefully reviewed the Office Action dated April 24, 2002, and responds with the above-amendments to the specification and claims in order to more fully describe the invention including the submission of new drawing figures 20-25, and to overcome the initial objections to several claims including the rejections under §112, second paragraph.

More specifically, the Applicant submits herewith new drawing figures 20-25. Fig. 20 illustrates an electrical circuit and Fig. 21 illustrates a mechanism for controlling the position of the inlet timing ring 90B. Fig. 22 and Fig. 23 illustrate transfer timing ring 92A, and Fig. 24 and Fig. 25 illustrate transfer timing ring 92B. The described operation of inlet timing ring 90A is applicable to the other timing rings. Only the reference numerals associated with the parts are different, i.e., the A and B sides of the engine, and the inlet and transfer components of the engine.

Further a proposed replacement drawing sheet for Fig. 8 is submitted. Figs. 8B and 8C are now properly labeled with regard to “‘O’ Ring 88.”

Although each of the original claims have been cancelled, the new claims substantially correspond thereto. It should be noted, however, that the new claims

include each of the suggested amendments made by the Examiner on pages 2-4 of the Office Action. Thus, the new claims 16-30 should not raise any of the same objections initially set forth by the Examiner with regard to original claims 1-15.

With regard to the rejection of claims 1, 2, and 8 under 35 USC §112 second paragraph, please note that corresponding new claims 16, 17, and 23 have been amended generally as suggested by the Examiner. Thus, new claims 16, 17, and 23 should not raise any of the same rejections under Section 112 initially set forth by the Examiner. With regard to the word “indirectly,” however, Applicant notes that the distinction between “indirectly” and “directly” seems to be grammatical rather than mechanical. From a thesaurus included in the Microsoft Word program, “directly” is defined as an adverb meaning “in a straight line, straight or unswervingly.” “Indirectly” is defined as an adverb meaning “not directly, in a roundabout way, circuitously, at one remove, ultimately or in some way.”

In Fig. 5 it can be seen that the crankshaft gear 22 does not mesh with, or even touch, the crankcase gear 23. The drive is, in fact, taken circuitously via the two “piggy back” idler gears 24A and 24 B mounted between the crankshaft gear 22 and the crankcase gear 23 and not straight from one gear to the other. So, by definition, it would seem to be incorrect to describe the crankshaft gear 22 as directly driving the crankcase gear 23 because they do not touch each other. Thus, Applicant has elected not to replace “indirectly” with “directly” in new claims 16 and 17 as originally requested by the Examiner.

With regard to the rejection of original claims 1 and 2 under 35 USC §102(b), the rejection is made moot by the cancellation of these claims. However, even if applied to corresponding new claims 16 and 17, the rejection is believed to be improper. In the cited patent, the gears were not indirectly connected by the idler gears as in the present claims. Accordingly, allowance of new claims 16 and 17 and their dependent claims is now in order and such action is earnestly solicited.

With regard to the rejection of original claims 3-12 under 35 USC §103, the rejection is made moot by the cancellation of these claims. However, even if applied to corresponding new claims 18-27, the rejection is believed to be improper.

To establish prima facie obviousness of a claim, "all claim limitations must be taught or suggested by the prior art." *In re Royka*, 490 F.2d 981 (CCPA 1974). The Weber patent shows a gear train layout similar to, but not the same as, the Gahan system. The differences lie in the fact that the drive is taken through only one of the idler gears, namely 161, The other idler gear 129 does not mesh with either the gear 160 or the gear 126. This results in the larger gear 126 rotating in the opposite direction to the gear 160, whereas in the Gahan system, both the crankshaft gear and the crankcase gear rotate in the same direction.

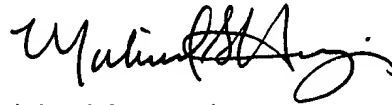
In short, there is no teaching or suggestion within these references of the presently claimed gear train layout. Absent such a suggestion to combine the teachings of these two references, the rejection of these claims appears to be based on an impermissible use of hindsight. As the Examiner is certainly well aware, "[t]here must be some something in the prior art that suggested the combination of these particular prior art devices and processes other than the hindsight gained from knowing that the inventor chose to combine these particular things in this particular way." *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988). No such suggestion is found in these cited prior art patents. Thus, claim 18 and claims 19-30 which depend therefrom are believed to be non-obvious over the cited patents for the reasons set forth above and are believed in condition for allowance.

Last, new claims 28-30 correspond to substantively allowed original claims 13-15 with amendments thereto to overcome minor claim objections. Thus, these new claims are similarly believed to be allowable over the cited prior art. Applicant elects at this time, however, not to rewrite the claims in independent form as the claims from which these claims depend are believed to be allowable over the cited prior art.

In light of the above amendments, Applicant contends that application overcomes Examiner's rejections and respectfully submits the case for reconsideration.

Respectfully submitted,

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